

In the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (CURRENTLY AMENDED) A card comprising:
 - a. at least one of a translucent and transparent card surface layer overlaying a transponder system; and
 - b. a machine recognizable compound associated with a portion of said card surface layer;
 - ~~c. a transponder system interfacing with said card surface wherein said~~ transponder system operable to receive said a first RF interrogation signal, authenticate said first RF interrogation signal, and transmit said a transponder system account data, said transponder system comprising:
 - i. a first transponder responsive to said first RF interrogation signal;
 - ii. a transponder system authentication circuit, said authentication circuit in communication with ~~at least one of said first transponder for~~ authentication of a first verification data and second transponder; and
 - iii. a transponder system database for storing said transponder system account data, said transponder system database in communication with said first transponder.
2. (ORIGINAL) The card of claim 1, wherein said card is at least one of a transaction card, identification card, smart card, credit card, charge card, debit card, access card, information storage card, and electronic commerce card.
3. (CURRENTLY AMENDED) ~~A~~The card of claim 1, wherein said machine recognizable compound is extrusion coated to said at least one of said a translucent and transparent card surface layer.

4. (CURRENTLY AMENDED) ~~A~~The card of claim 1, wherein at least one of said translucent and transparent card surface layers comprises a plurality of perforations.
5. (CURRENTLY AMENDED) ~~A~~The card of claim 3—4, wherein said plurality of perforations forms a pattern in at least one of said translucent and transparent card surface layers.
6. (CURRENTLY AMENDED) ~~A—~~The card of claim 3—4, further comprising a subassembly of film layers, wherein said subassembly comprises a second layer and ~~further wherein the said~~ subassembly comprises the said plurality of perforations through said subassembly.
7. (CURRENTLY AMENDED) ~~A—~~The card of claim 1, further comprising:
 - a. ~~a second transponder system interfacing with~~ said card surface layer configured to overlay a second transponder system responsive to a second RF interrogation signal, said second transponder system operable to receive ~~said~~ a second RF interrogation signal, authenticate said second RF interrogation signal, and transmit said transponder system account data, said second —transponder system comprising a second transponder responsive to said second RF interrogation signal, wherein such transponder system authentication circuit is configured for authenticating a second verification data, said authentication circuit in communication with ~~at least one of said first transponder and said second transponder; and~~
 - i. ~~a second transponder system database in communication with said second transponder system.~~
8. (CURRENTLY AMENDED) The card of claim 1, further comprising a plurality of layers wherein a first layer comprises a first polymer and a second layer comprises a second polymer wherein said plurality of layers is one of a transparent or and translucent layer.

9. (ORIGINAL) The card of claim 1, wherein said machine recognizable compound includes at least one of a chemical, solution, dye, layered material, pigment, encapsulated pigment, coating, film, thread, plastic, ink, concentrate, thermoplastic matrix, thermoset matrix, fiber, paper, and planchette.
10. (CURRENTLY AMENDED) The card of claim 1, wherein said machine recognizable compound includes at least one of invisible, visible ~~or~~ and colored compounds.
11. (ORIGINAL) The card of claim 1, wherein said machine recognizable compound includes an infrared ink.
12. (ORIGINAL) The card of claim 1, wherein said machine recognizable compound includes an infrared ink comprising in the range of about 0.001 to 40.0 wt.(%) of an infrared activated material.
13. (ORIGINAL) The card of claim 1, wherein said machine recognizable compound includes an optically recognizable compound.
14. (CURRENTLY AMENDED) The card of claim 1, wherein said machine recognizable compound is configured to at least one of block, diffuse, reflect, refract and absorb infrared light.
15. (ORIGINAL) The card of claim 1, wherein said machine recognizable compound includes at least one of a binder, UV absorber, reflector, antioxidant, optical brightener, color shifter, chemical configured to improve processing, and chemical configured to adjust rheological properties.
16. (CURRENTLY AMENDED) The card of claim 1, wherein said machine recognizable compound includes: about 2% Epolin VII-164 dye, about 98% Tech Mark Mixing Clear, about 980.0g of Tech Mark solvent evaporative screen ink, about 20.0g of Epolight VII-164 dye.

17. (CURRENTLY AMENDED) The card of claim 1, wherein said machine recognizable compound includes: about 1.5% ~~lbs~~ of Epolin VII-164 dye, about 96.5% ~~lbs~~ of Tech Mark Mixing Clear, and about 2.0% ~~lbs~~ of Epolight VI-30 dye.
18. (CURRENTLY AMENDED) The card of claim 1, wherein said machine recognizable compound includes: about 0.066% ~~30.0 grams~~ of Epolight VII-172 dye, 1.5% ~~700.0 grams~~ of polyvinylchloride plastic, and ~~99.0 lbs~~ 98.4% of PVC.
19. (ORIGINAL) The card of claim 1, wherein said machine recognizable compound includes PET plastic.
20. (CURRENTLY AMENDED) The card of claim 1, wherein said machine recognizable compound includes: about 80% ~~0.80 grams~~ Tech Mark mixing clear, about 7% ~~0.07 grams~~ VMCA resin, about 10% ~~0.10 grams~~ cyclohexanone, and about 3% ~~0.03 grams~~ ~~epolight-Epolight viiVII-164~~.
21. (CURRENTLY AMENDED) The card of claim 1, wherein said machine recognizable compound includes: about 55% ~~0.55 grams~~ vinyl VMCA resin, about 35% ~~0.35 grams~~ EEP solvent, about 5% ~~0.05 grams~~ cyclohexanone, about 3% ~~0.03 grams~~ ~~epolight-Epolight viiVII-164~~, and 2% ~~0.02 grams~~ ~~epolight-Epolight viVI-30~~.
22. (CURRENTLY AMENDED) The card of claim 1, wherein said machine recognizable compound includes: about 90% ~~0.90 grams~~ TM mixing clear, about 3% ~~0.03 grams~~ cyclohexanone, about 3% ~~0.03 grams~~ ~~epolight-Epolight viiVII-164~~, about 2% ~~0.02 grams~~ ~~epolight-Epolight viVI-30~~, and about 2% ~~0.02 grams~~ ~~epolight-Epolight 6084~~.
23. (CURRENTLY AMENDED) The ~~C~~card of claim 1, further comprising a second transponder responsive to a second RF interrogation signal, said first RF interrogation signal different from said second RF interrogation signal.
24. (CURRENTLY AMENDED) ~~A system according to~~ The card of claim 17-23, wherein said transponder system further includes a transponder system protocol/sequence

controller configured to control the order of operation of said first transponder, said second transponder, said transponder system authentication circuit, and said transponder system database said protocol/sequence controller in communication with at least one of said first transponder, said second transponder, said transponder system authentication circuit, and said transponder system database, said transponder system protocol/sequence controller.

25. (CURRENTLY AMENDED) ~~A system according to~~ The card of claim 17-24, wherein said transponder system further comprises at least one of a first transponder system antenna and a second transponder system antenna, said first transponder system antenna configured to receive said first RF interrogation signal, and said second transponder system antenna configured to receive ~~a said~~ second RF interrogation signal.
26. (CURRENTLY AMENDED) ~~A system according to~~ The card of claim 18 24, wherein said transponder system protocol/sequence controller is responsive to at least one of said first RF interrogation signal and said second RF interrogation signal, said transponder protocol/sequence controller controlling the sequence of operation at least one of said transponder system authentication circuit, and said transponder system database, in response to at least one of said first RF interrogation signal and said second RF interrogation signal.
27. (CURRENTLY AMENDED) ~~A system according to~~ The card of claim 18 24, wherein said transponder system protocol/sequence controller is configured to activate said transponder system authentication circuit in response to said first RF interrogation signal, said transponder system authenticating circuit configured to provide an encrypted RF interrogation signal, said transponder system authentication circuit configured to provide said encrypted RF interrogation signal to said first transponder for providing to a RFID reader.

28. (CURRENTLY AMENDED) ~~A system according to~~ The card of claim 1-24, wherein said transponder system database is operable to store at least one of a transponder system identification data, a RFID reader decryption security key, a transponder system account data.
29. (CURRENTLY AMENDED) ~~A system according to~~ The card of claim 22-28, wherein said transponder system database is configured to provide said RFID reader decryption security key to said transponder system authentication circuit in response to an encrypted authentication code.
30. (CURRENTLY AMENDED) ~~A system according to~~ The card of claim 1, wherein said transponder system includes an internal power source.
31. (CURRENTLY AMENDED) ~~A system according to~~ The card of claim 24-30, wherein said transponder system ~~further~~ includes a biometric circuit, said biometric circuit in communication with said internal power source.
32. (CURRENTLY AMENDED) ~~A system according to~~ The card of claim 25-31, wherein said biometric circuit is configured to provide a biometric data verification response, said biometric circuit configured to provide said biometric data verification response to at least one of said RFID reader and a merchant system, wherein said biometric data verification response is an identification verification data.
33. (CURRENTLY AMENDED) A card comprising:
- a. at least one of a translucent and transparent card surface overlying a transponder system;
 - b. a machine recognizable compound associated with a portion of said card surface;
 - c. at least one of a holographic foil, an integrated circuit chip, a magnetic stripe, an opacity gradient, embossed characters, signature field, and text and logo in communication with said surface; and

- d. a transponder system including a RFID circuitry operable to receive a first RF interrogation signal, and to authenticate said first interrogation signal, said transponder system comprising a RFID circuitry including a first transponder responsive to a first RF interrogation signal.
34. (CURRENTLY AMENDED) The card of claim ~~27~~ 33, wherein said card is at least one of a transaction card, identification card, smart card, credit card, charge card, debit card, access card, information storage card, electronic commerce card, document and paper.
35. (ORIGINAL) The card of claim ~~27~~ 33, wherein said machine recognizable compound includes at least one of a coating, film, thread, plastic, ink, fiber, paper, and planchette.
36. (CURRENTLY AMENDED) A card comprising:
- at least one of an opaque, translucent and transparent card surface;
 - a machine recognizable compound associated with a portion of said surface;
 - a holographic foil;
 - an integrated circuit chip;
 - a RFID circuitry; and
 - a magnetic stripe.
37. (CURRENTLY AMENDED) A process for fabricating a card including placing IR film between two layers of PET GS and incorporating RFID circuitry between the two layers.
38. (CURRENTLY AMENDED) The process of claim ~~31~~ 37 further comprising providing chemical deposition by at least one of vacuum coating, solar coating and Magnetron sputtering, providing a laminate, providing a core layer and adhering the layers of the card with adhesive.
39. (CURRENTLY AMENDED) A card at least a portion of which is substantially transmissive to visible light, comprising:

- a. at ~~least~~least one of a translucent and transparent card surface for overlaying a RFID circuitry;
 - b. a machine recognizable compound covering at least a portion of said card surface, wherein said machine recognizable compound is substantially transmissive to visible light; and,
 - c. a RFID circuitry ~~interfacing~~in communication with said surface, said RFID circuitry including a transponder responsive to a first interrogation signal.
40. (CURRENTLY AMENDED) A card at least a portion of which is substantially transmissive to visible light, comprising:
- a. at least one of a translucent and transparent card surface;
 - b. at ~~least~~least one of a holographic foil, an integrated circuit chip, a magnetic stripe, an opacity gradient, embossed characters, signature field, text and logo;
 - c. a machine recognizable compound covering at least a portion of said card surface, wherein said machine recognizable compound is substantially transmissive to visible light; and
 - d. a RFID circuitry ~~interfacing~~in communication with said surface, said RFID circuitry including a transponder responsive to a first interrogation signal.
41. (CURRENTLY AMENDED) A process for fabricating a card at least a portion of which is substantially transmissive to visible light, comprising:
- a. placing a machine recognizable compound between at least two layers of PET IR forming a subassembly; and
 - b. placing a RFID circuitry between at least one layer of the PET and the machine recognizable compound.
42. (CURRENTLY AMENDED) A process for fabricating a card at least a portion of which is substantially transmissive to visible light, comprising:

- a. placing a machine recognizable compound between at least two layers of PET IR forming a subassembly;
- b. placing the subassembly between at least two layers of polyvinylchloride; and
- c. placing a RFID circuitry between at least one layer of the polyvinylchloride and at least one layer of the subassembly.

PLEASE ADD THE FOLLOWING NEW CLAIMS:

- 43. (NEW) The card of claim 6, wherein said transponder system comprises at least one antenna operable to receive said interrogation signal.
- 44. (NEW) The card of claim 43, wherein said antenna is disposed between at least one of: said machine recognizable compound and at least one of said transparent layer and transparent layer, said second layer and said at least one of said transparent layer and said transparent layer, and said machine recognizable compound and said second layer.
- 45. (NEW) The card of claim 43, wherein said subassembly includes said transponder system, said subassembly disposed between one of said machine recognizable compound and at least one of said transparent layer and transparent layer.
- 46. (NEW) The card of claim 7, wherein at least one of said first transponder system antenna and said second transponder system antenna is disposed between one of said machine recognizable compound and at least one of said transparent layer and transparent layer.
- 47. (NEW) The card of claim 1, wherein said machine recognizable compound substantially blocks infrared light from being transmitted through said card surface layer.
- 48. (NEW) The card of claim 33, wherein said machine recognizable compound substantially blocks infrared light from being transmitted through said card surface layer.

49. (NEW) The card of claim 36, wherein said machine recognizable compound substantially blocks infrared light from being transmitted through said card surface layer.
50. (NEW) The card of claim 39, wherein said machine recognizable compound substantially blocks infrared light from being transmitted through said card surface layer.
51. (NEW) The card of claim 40, wherein said machine recognizable compound substantially blocks infrared light from being transmitted through said card surface layer.
52. (NEW) The process of claim 41, wherein said machine recognizable compound substantially blocks infrared light from being transmitted through said card surface layer.
53. (NEW) The process of claim 42, wherein said machine recognizable compound substantially blocks infrared light from being transmitted through said card surface layer.
54. (NEW) A card according to claim 1, wherein said transponder system is configured to provide information in magnetic stripe format.
55. (NEW) A card according to claim 33, wherein said transponder system is configured to provide information in magnetic stripe format.
56. (NEW) A card according to claim 36, wherein said transponder system is configured to provide information in magnetic stripe format.
57. (NEW) A card according to claim 39, wherein said transponder system is configured to provide information in magnetic stripe format.
58. (NEW) A card according to claim 40, wherein said transponder system is configured to provide information in magnetic stripe format.